

EXC-4000PCIe

The EXC-4000PCIe is part of the 4000 family of multiprotocol carrier boards. This PCI Express interface board supports up to four independent, removable modules. Each module can be any of the 4000 family modules.

The EXC-4000PCIe supports Direct Memory Access (DMA), which enables the board to access system memory for reading and writing independently of the computer's CPU. This results in faster data transfer to and from the board, with much less CPU overhead than when not using DMA.

General Features

- ◆ Supported Protocols:
 - ARINC 429/575 (5 or 10 ch. per module)
 - ARINC 708/453 (2 ch. per module)
 - MIL-STD-1553 (single function or multifunction)
 - MIL-STD-1760
 - Discrete I/O (20 ch. per module)
 - Serial RS485/RS422/RS232 (2 or 4 ch. per mod.)
 - H009
 - CAN (2, 4, or 6 ch. per module)
 - MMSI
- ◆ 16-bit Count Down Timer
 - 1–65,635 µs resolution
 - Interrupt or global reset upon count down



IRIG B Time Code Input

- ◆ Carrier wave:
 - 1KHz Amplitude modulated sine wave
- ◆ Rate Designation: 100 peaks per second
- ◆ Modulation ratio: 3:1
- ◆ Input Amplitude: 0.8–3.5 Vpp (3 Vpp Typ)
- ◆ Coded Expressions supported:
 - BCD time-of-year code word
 - Control functions
 - Straight Binary Seconds (SBS) time-of-day
- ◆ Application:
 - Synchronization of Time Tags, display and IRIG B time

Physical Characteristics

- ◆ Dimensions: 188.0 mm x 106.9 mm
- ◆ Weight: 133 g (without modules)

Operation Environment

- ◆ Temperature: 0°–70°C standard temperature
–40° to +85°C extended temperature (optional)
- ◆ Humidity: 5%–90% noncondensing
- ◆ MTBF: 188,540 hours at 25°C, G_F, S217F

Host Interface

- ◆ PCI Express compliance: x1 lane PCIe v1.1
- ◆ Memory space occupied:
 - 512 Kbytes (128K per module)
- ◆ Interrupts: INTA# virtual wire
- ◆ Power: Depends on configuration. For more details, see the user's manual.

Software Support

- ◆ C drivers with source code
- ◆ Menu driven software for most of the supported protocols
- ◆ *Exalt Plus*: Excalibur Analysis Laboratory Tools for Windows 32/64-bit (optional)
- ◆ Additional software may be available on our website

Ordering Information

- ◆ **EXC-4000PCIe/xx**
 - Multi-protocol interface board for PCIe compatible systems
- Note:** Replace "xx" with the carrier board modules ordered. Use the module code specified in the *Module Ordering Information* on our website, or in the *User's Manual* of the board.
- ◆ Additional Options:
 - E Extended temperature option
 - 001 With conformal coating



June 2011, A-2

These specifications are subject to change without notification



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